

Jeopardy Assessment

Incidental Taking Authorization for the Butler's Gartersnake at Marketplace Triangle and McLario Developments Waukesha County, Wisconsin

Background

The state-threatened Butler's gartersnake (*Thamnophis butleri*) is the smallest of the five Wisconsin gartersnake species. Both sexes of this species reach maturity during their second full year and females deliver 4-19 live-born young in mid to late summer. The Butler's garter snake is a colonial species that is restricted to several southeastern counties in Wisconsin. This species requires a moderately open to open canopy habitat, preferably with both upland and wetland habitat. Butler's naturally hibernate in open-canopy wetlands (sedge meadows, fringes of cattail marshes, etc.) but are also known to occupy sites that provide other means for successful overwintering (i.e. old landfills where conditions provide access below the frostline and where adequate moisture exists).

The Butler's gartersnake was listed as a state-threatened species in 1997 for two primary reasons: extensive habitat loss within its very limited range; intergradation with a similar species, the eastern plains gartersnake *Thamnophis radix*. Habitat loss leads the list of threats. In addition, habitat fragmentation has caused populations to become isolated, potentially compromising their genetic integrity. Additional habitat losses will further hamper recovery efforts unless enough sites can be identified and preserved to perpetuate this species.

Intergradation with the plains gartersnake likely continues at the periphery of the Butler's known range, particularly at the southern and western edges of its range, but is expected to lessen as habitat fragmentation isolates populations. This will, in turn, create other management challenges in dealing with the long-term survival of the Butler's gartersnake.

Surveys and monitoring since the snake's listing in 1997 reveal that Butler's can occur in large numbers on relatively small sites (i.e. 400+ snakes detected on a 20-acre site with less than 50% suitable [open canopy] habitat). At sites where Butler's have been well surveyed, their populations tend to show a healthy age-class structure, indicating that regular recruitment is occurring at those locations. Surveys have also demonstrated that Butler's can occur on disturbed and degraded sites.

Range limits for the Butler's gartersnake may be further refined as additional information on genetics and taxonomy becomes available. Changes in range limits may necessitate re-assessing jeopardy policies, by either relaxing or tightening allowable take.

In summary, the Butler's gartersnake is a fast-maturing species with potentially high annual recruitment. The habitats required for this species have and are continuing to be lost due to development pressures within southeastern Wisconsin. Relatively large populations can potentially be sustained on relatively small sites (under 20 acres), which may or may not be degraded, but as these sites become further isolated, their populations may suffer from genetic stagnation. The long-term future of this species remains unclear and the protection of all sites considered valuable for long-term conservation of the species should continue.

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The department has determined that the proposed projects are not likely to jeopardize the continued existence or recovery of the state population of these snakes or the whole plant-animal community of which they are a part.

Marketplace Triangle Development

The Marketplace Triangle Development was required to develop a Butler's gartersnake conservation plan for the proposed project site. The plan will allow for the incidental taking of the snake but habitat restoration and enhancement will help insure that this population is not jeopardized at this location. The department has approved the conservation plan that contains the following conditions:

Conditions:

1. Sediment fencing must be installed around the construction footprint to prevent additional snakes from entering the construction footprint
2. Snake removals will be required within the construction footprint to minimize take of the snake.
3. The remaining snake habitat outside the construction footprint will be restored and enhanced according to the conservation plan to improve the carrying capacity of the population on the remaining habitat.
4. Snake and habitat monitoring will be conducted for 10 years following the completion of the project to insure that the snake population has been perpetuated and that vegetation goals have been achieved.

McLario Development

The McLario Development site has been determined to be of minimal conservation value and therefore no permit conditions are required for this site. However, the project will incorporate a number of voluntary conservation measures to protect and maintain the snake at the project site:

1. In order to minimize take of the snake, snake exclusionary fencing will be utilized to keep snakes outside of the construction zone.
2. Snakes within the construction footprint will be moved to other areas of suitable habitat within the project area.
3. A box culvert will be installed as part of a new road to maintain habitat connectivity for snakes and other wildlife.
4. Limited buffer areas will be restored to natural vegetation suitable for the Butler's gartersnake.